

Testimony of

Robert C. Wright
President and CEO

NATIONAL BROADCASTING COMPANY, INC.

Before the
Committee on Commerce
Subcommittee on Telecommunications, Trade and Consumer Protection
U.S. House of Representatives

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Chairman Tauzin, Congressman Markey and Members of the Subcommittee on Telecommunications, Trade and Consumer Protection, thank you for this opportunity to present NBC's views on the historic opportunities created by digital television and related spectrum management issues affecting broadcasters. I commend you, Mr. Chairman, for convening this early hearing on the subject of digital television and spectrum use and management -- issues that affect all consumers, the domestic economy and America's position in the international marketplace.

I am delighted to be here today to demonstrate for the Subcommittee revolutionary High Definition television technology. This morning, you will be viewing a live broadcast from WHD-TV, our model station located at NBC's owned and operated station, WRC-TV, in Northwest Washington. This will be the very first live HDTV transmission to Capitol Hill.

I also am here to predict that new HDTV digital receivers will be available on store shelves in about 18 months. If all goes well, by the end of 1998, Washington

area viewers should be able to purchase a DTV receiver and watch what you are seeing here today.

I applaud the Subcommittee for its past, pioneering efforts to lay the foundation for the transition to digital television. I also urge the Subcommittee to do all it can to expedite and simplify the rollout of this exciting new technology for the American consumer.

DIGITAL TELEVISION OVERVIEW

Nearly a decade ago, this Subcommittee held the first congressional hearing on high definition television, focusing national attention on the potential of this technology to create jobs, provide international technological leadership and enhance the viewing pleasure of American consumers. At that time, the U.S. was trailing badly Japan and Europe in the HDTV race. This Subcommittee challenged American industry to exhibit the vision and commitment to overtake the rest of the world and solicited input from the private sector about the appropriate role of government in facilitating the development of HDTV. The television industry -- broadcasters, TV set manufacturers and production studios -- responded.

Today, after ten years and more than one half of a billion dollars of private sector investment, we stand poised to deliver true, high definition television to the

American consumer. Along the way, we discovered the wonders of digital video compression and dynamic data transport, enabling us to leapfrog our international competition and transform television from an analog moving picture transmission system to a digital data delivery system. This fundamental change in television technology promises to be far more important than the shift from black and white to color.

Digital television, or DTV, will enable American viewers to enjoy brilliantly clear pictures and CD quality sound, enhancing greatly the pleasure of the viewing experience. As we will demonstrate this morning, watching a major news, entertainment, or sports event on DTV is a fundamentally different sensory experience than analog television provides. Moreover, the picture that viewers see will be as pristine as you will see here this morning, even if the viewer lives at the edge of the coverage area. DTV is far more than pretty pictures, however. It is a powerful digital pipe into the home of every American. This digital capability offers an enormous potential to transform television. For example, in the future, a viewer watching this Subcommittee hearing broadcast in DTV likely will be able to access biographical and voting records of every Subcommittee member, records of the past hearings of the Subcommittee on HDTV and spectrum and major speeches made on the subject.

THE CHALLENGES AHEAD

Although the promise of DTV is tremendous and near at hand, many challenges and risks lie ahead of us before DTV becomes a reality. I urge this Subcommittee not to ignore the risks and difficulties remaining. On the technology front, we are in the midst of moving from the developmental design phase to full-scale, real world implementation. Broadcast engineers must be trained in the intricacies of digital video transmission. TV set manufacturers also must make enormous investments to go from development to full scale production of digital receivers. Unprecedented cooperation between the broadcast and consumer electronics industries will be required to ensure universal service. As with any revolutionary, new technology, unforeseen technical challenges lurk, and they will have to be solved.

Even beyond the remaining technology development, the moment has arrived when the broadcast industry must invest billions of dollars to make the conversion to digital. Broadcasters must make this investment at a time when the level of competition for viewers and advertising dollars has intensified beyond what anyone could have predicted even ten or 20 years ago. Moreover, the result of this investment -- in terms of enhanced picture and sound quality -- will simply keep pace with our competitors and not yield a dime of new revenue. And, during the transition, we will need to keep two full transmission systems operative -- the new digital system transmitting to new digital TV sets plus our existing analog transmission system to serve the current generation of

analog TV sets.

As broadcasters, we do not shrink from this challenge. We are optimistic that, as we enter the digital world, we will be able to develop new and innovative ways to utilize the additional capabilities that digital transmission will give us. But, as we sit here today, every member of this Subcommittee should realize that the business uncertainties associated with risking investment capital on developing these new capabilities into services that consumers will seek out and that advertisers will pay for are overwhelming. No broadcaster is asking for any business guarantees or for any government handouts. When the conversion to digital is complete, we have committed that we will return some 40% of the spectrum currently allocated to over-the-air broadcasting so that it can be auctioned off. No other industry has made such a commitment. In the meantime, I urge you to oppose policies that would add to the financial and technology challenges broadcasters face as we make the conversion to digital, fully committed to continuing to provide news, sports and entertainment free, over the air to the American public.

If government and industry act wisely, the transition from the analog to the digital television era can be accomplished in a smooth, consumer-friendly manner which will deliver the full capabilities of this technology into the home of every American. Otherwise, the DTV transition could be botched. Unfortunately, there is still ample time and occasion to snatch defeat from the jaws of victory.

THE ROLE OF GOVERNMENT IN MAKING DTV A REALITY

What can the Administration, Congress and the FCC do to ensure that these challenges will be met successfully and the potential of DTV will be realized fully and rapidly? I would suggest three principles to frame the government's role in this transition from analog to digital broadcasting. First, do no harm. Second, be flexible -- promote policies which permit maximum innovation and encourage the delivery of diverse products and services to consumers. Third, be patient -- leave room for unanticipated technical or economic problems which could slow the pace of the transition.

Congress will have occasion to apply these principles almost immediately as it considers various spectrum auction proposals as part of its budget deficit reduction deliberations. Similarly, the FCC will have the opportunity to apply these principles immediately as it prepares to complete its DTV rulemakings and, specifically to issue a table of allotments and assignments for DTV.

I would suggest and urge that application of these principles lead to the following results. Congress should not sacrifice DTV on the altar of deficit reduction. While NBC strongly supports balancing the budget and appreciates fully how tempting projected broadcast spectrum auction revenues are to help achieve that objective, the adverse macroeconomic consequences of killing DTV dwarf the benefits to be gained from a

one time auction. We cannot forfeit the wave of new jobs and capital investment that flows from the transition to DTV for a quick revenue hit.

Congress, as it did last year, should reject the Administration's proposal contained in its FY 1998 Budget to conduct an accelerated auction of the reversionary analog spectrum in 2002. There is simply no conceivable way that the transition to digital can be completed that fast, even if the actual return of the analog channel is deferred until 2005. There are approximately 250 million TV sets in American homes today. In a good year, the TV set industry sells roughly 25 million sets. Let us remember, that when the analog channel is returned, meaning broadcasters cease transmitting in the NTSC standard, every TV set will have to be replaced or augmented with a converter. A 15 year transition period is reasonable to avoid consumer dislocation.

NBC fully supports the notion of repacking the returned analog spectrum after an orderly transition to DTV is completed and having the government auction it in a manner calculated to yield the most revenues, but this simply cannot be done within the extremely narrow five year window for current balanced budget efforts. If broadcasters are forced to vacate prematurely their analog spectrum before consumers have had sufficient opportunity to purchase digital television sets, millions of consumers would be left in an untenable position of either having to choose between accelerated purchase of expensive digital sets or interim converter boxes, or being left without any means of

receiving free over-the-air television at all. There is absolutely no need to impose such a Hobson's choice on America's TV viewers.

The Administration's proposal to levy a fee on broadcasters to make up for any shortfall from projected auction revenues also should be rejected now or in the future. The notion that the broadcasting industry should be taxed because government economists guessed wrong about revenue estimates is simply not supportable. Furthermore, Congress should reject any plan that singles out and taxes broadcasters and no other spectrum user.

Congress also should reject the Administration's proposal to auction channels 60-69 in the years 2001 and 2002. This proposal presupposes FCC adoption of a companion plan which would eliminate channels 60-69 from the digital table of allotments and assignments. The FCC should reject that approach because it would imperil the operations of many existing broadcasters and create potential havoc in some larger markets by creating digital channel shortages. Instead, NBC urges the Commission to adopt an alternative plan proposed by a united broadcast industry based on years of study and extensive computer modeling.

The faster licenses are issued, the sooner DTV service can begin. I hope the FCC will complete the DTV table of allotments and assignments proceeding by April 1, 1997, as key Members of Congress, including the Chairman and Ranking Member of

the House Commerce Committee, urged in a letter to the Chairman last summer. Last week's welcome initiative by Vice President Gore to establish a commission to study the public interest obligations of DTV broadcasters and make recommendations to the Commission should facilitate meeting the April 1 deadline.

NBC IS FIRMLY COMMITTED TO DIGITAL TELEVISION

NBC is committed to the broadcasting business and, as a competitive necessity for the future of that business, to the transition to digital television. An orderly and universal transition to digital is necessary in order for us to compete against pay video services, all of which are converting to digital. Broadcasters need to be able to offer free, over-the-air digital video services that are competitive with wireline and satellite pay services in terms of the quality and scope of viewing options offered.

NBC worked with other major broadcast organizations and equipment manufacturers to reach agreement on the DTV standard. Beyond its work on the DTV standard, NBC is in the vanguard of the transition to DTV. NBC already has designed and is building a \$55 million state-of-the-art digital infrastructure at its headquarters at 30 Rockefeller Plaza that will be commissioned this year. It is a remarkable facility which will enable the NBC network to pioneer in the distribution of free, over-the-air digital television programming. In May 1996, WRC-TV, NBC's owned-and-operated station in Washington, D.C., was selected as the host station for the Model HDTV Station Project -- a 3-year, \$6 million effort funded by more than 260 television stations

nationwide through the Association of Maximum Service Television (MSTV), and by equipment manufacturers through the Consumer Electronics Manufacturers Association (CEMA) of the Electronic Industries Association. The model station, WHD-TV, operating on Channel 34, with an experimental license to operate at WRC-TV, on July 31, 1996, became the first commercial station to send and receive HDTV audio and video data (both live and recorded) over the air in the format of the recently adopted FCC digital standard. Just over a week ago, NBC broke new ground by broadcasting "Meet the Press" on WHD-TV. The February 2, 1997 edition became the first network television program to be broadcast live in digital high definition, using the new DTV standard.

With these important steps, NBC already has laid the foundation for bringing DTV enriched news, sports and entertainment to all NBC network viewers. Within 18 months after the FCC's completion of the table of allotments and assignments, hopefully by April 1, 1997, the NBC network expects to be on the air with DTV programming, including most of its prime time schedule. We intend to move as aggressively and expeditiously as is technically feasible to enable all of our owned and operated ("O&O") stations around the country to transmit DTV. We expect that our Washington, DC station will be ready for full scale DTV operation in 1998. We expect all of our O&O stations to be transmitting DTV by 2002. We are also encouraging and helping our NBC affiliates across the nation in making the transition to DTV.

The vigor with which NBC is tackling the transition and, ultimately, the conversion to DTV stems from two fundamental facts: (1) Broadcasting must go digital to remain a competitively viable service in the 21st century; and (2) it is uneconomical to transmit both NTSC and DTV any longer than is absolutely necessary to ensure a seamless transition for American consumers. Thus, NBC intends to play a leading role in driving the conversion to DTV.

DTV, SPECTRUM POLICY AND THE TELECOMMUNICATIONS ACT OF 1996

Congress took several important steps in facilitating the transition to DTV in enacting the Telecommunications Act of 1996 (the "Act"). Section 201 of the Act, the broadcast spectrum flexibility provisions, establishes a broad policy framework for the conversion to DTV. It ensures that existing broadcasters will have the opportunity to provide DTV. It preserves the primacy of free, over-the-air broadcast services in the digital era and continues the public interest obligations of broadcasters. Broadcasters would be limited to 6 MHz of spectrum at the end of the process, the very same amount of spectrum each broadcaster now requires to transmit in analog, paving the way for repacking and auctioning the reversionary spectrum currently used for NTSC transmission. It creates the flexibility for broadcasters to provide ancillary or supplementary services and provides a fee mechanism to generate revenue for the government associated with the provision of such pay services.

The numerous other provisions in the Act which tear down the barriers to entry between previously distinct and compartmentalized sectors of the communications marketplace also have a profound though perhaps unintended impact on the transition to DTV. By allowing telephone companies to provide video programming services in their service areas and allowing cable companies to provide telephony, the Congress created the predicate for a vastly more competitive multichannel video programming market. Both the wireline (telephone and cable) and the wireless (DBS) providers will be digital. Broadcasters' ability to compete with these digital providers is tied inextricably to DTV conversion. This must happen, or free, over-the-air broadcasting will degenerate into a second class service which ultimately will not be able to survive.

Finally, it should be emphasized that, DTV technology itself is providing huge dividends in increased spectrum efficiency. When the transition is complete, perhaps over a 15 year period, broadcasters will surrender to the FCC the spectrum now used for NTSC broadcast television transmission so that it can repacked and then auctioned as a nationwide, contiguous block of roughly 150 megahertz of spectrum. Thus the government will realize revenue from increased spectrum efficiency. This is a sound approach. It should not be disturbed.

CONCLUSION

Let us do everything in our power to make DTV a reality as fast as humanly

possible. NBC pledges its cooperation to the Administration, the Congress and the FCC to achieving that objective.